



Initiative Requirements

Name of project/initiative Enhancements to Nutron for Phase 2 Implementation
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Background Information

On the 9th May 2011 the Interest Rate Bond Market officially moved from the BTB system to the NUTRON platform. Following a number of market communication sessions with the market on an individual basis and in various town hall meetings a cut off point was reached with regards to system functionality to allow the JSE to implement the software without having to extend the contract with Peresys with whom the JSE still had a contract for the BTB application.

Now that the Nutron system is live the JSE is required to deliver on a number of promises made to the market prior to go-live. This amount to functionality changes as well as new functionality which was requested prior to go-live. Along with these enhancements there are a number of bugs which have been logged and will form part of this document as well.

Given the difficult implementation of Phase 1 of the project the interest rates division feels it is of utter importance that the Phase 2 of the project is implemented as transparently and accurately as possible baring in mind time restrictions and current business risks to its members.

A list of changes has been captured into this document which will be assessed by the JSE and presented to the market in a workshop to decide on timeframes and prioritisation.

An important fact to mention is the interdependencies between various role-players on the system. The Nutron platform is currently used by the currencies market, interest rates market, settlement division, information product sales division and the surveillance division. Each of these divisions are stakeholders in the new release of Phase 2 and all have requirements for this release.

Some changes to the system could have impacts on markets other than the interest rates market and it is important that these be minimised as far as possible.

All identified bugs and enhancements will be included in this document, along with details, impacts and prioritisations.

1 Request Objective

The objective of this initiative is to enhance the existing Nutron offering to reduce operational risk in the Interest Rates Bond Market and provide additional value add through a Nutron front end and API for members benefit.

2 Current Business Environment

Currently the Nutron platform is used by market participants for trading Currency products, Interest rate derivatives, Repos and Bonds. Over 100 users connect to the environment using fixed line connectivity through the use of either an API or a generic front end. A number of bugs have identified themselves post go live which were not picked up during a testing phase. A number of operational risks are being managed outside of system functionality by the market on a day to day basis.

The Interest Rates and currency divisions generate revenue from trades reported to the Nutron by market participants. Increased functionality and stability allows users to gain trust i an environment for reporting new instruments and more trades.

3 Requirements/Proposed Business Impact

Six sections are listed below. They cover the following:

- Bugs
- Critical Enhancements
- Other Enhancements
- Settlement Requirements
- Surveillance Requirements
- IPS Requirements

Due to the nature of the project all of the requirements will be listed into one of these subcategories regardless of whether they eventually get included in this release. A market meeting as well as a number of internal meetings still needs to be had to discuss what requirements need to be included as a matter of urgency versus the “nice to have” and the possible time implications of such enhancements.

A Priority will be attached to each line item on a scale of 1 to 5.

- 1 – Urgent and cannot wait for next release date
- 2 – Important for the next release and cannot wait
- 3 – Important for next release
- 4 - Nice to have if we have time
- 5 – Not going to be considered

4.1 Bugs to be corrected

3.1.1 Capturing an Agency Repo Trade without capturing a client code causes the trade to default to the first available client’s code.

3.1.1.1 Description

This problem exists on the capturing of Agency Repo transactions with clients. If a Nutron client is not specified in the principal field and the deal is submitted after capturing all the other salient features of the deal, the trade defaults the Principal to the member code. This only occurs on the front end. This only happens on agency deals when capturing to the Strate lookup code. When submitting with the Nutron code there is no problem.

3.1.1.2 Required Action

The principal field should be populated with a Strate Code and the principal should be submitted with this information.

3.1.1.3 QC Reference

3.1.1.4 Priority

3

3.1.2 Filtering of views does not work correctly

3.1.2.1 Description

The filtering does not always display the correct information. Often there are instruments missing from the filtered list. This is true for the following screens Unmatched, incoming and outgoing, unconfirmed, spot trade views and unsettled views.

3.1.2.2 Required Action

We request that the filtering be fixed to display the correct selected information. NB. Please refer to the filtering enhancement request labeled 4.2.x in the enhancements section.

3.1.2.3 QC Reference

3.1.2.4 Priority

3

3.1.3 Printing a filtered view results in the full view being printed and not the filtered view

3.1.3.1 Description

When filtering is applied to a view and the view is then printed the results that are printed include the entire view and not only the filtered view. This is true for the following screens Unmatched, incoming and outgoing, unconfirmed, spot trade views and unsettled views.

3.1.3.2 Required Action

When printing a filtered view, only the filtered display should be printed. NB. Please refer to the filtering enhancement request labeled 4.2.x in the enhancements section.

3.1.3.3 QC Reference

3.1.3.4 Priority

3

3.1.4 The Pricing of Inflation Linked bond repos across an ex date is not working correctly

3.1.4.1 Description

The pricing of a repo transaction starts by calculating the first AIP and then using the REPO rate to calculate the second price by adding an interest component (REPO Rate) to the first price. If the first leg of the transaction is reported with cum interest and the second leg is reported with ex interested the actual coupon which is due to the holder is not being inflated for inflation. An extract from the pricing document for inflation linked bonds is included for detailed reference. "pricing+methodology+for+inflation+indexed+bonds+and+buysell_205.xls"

3.1.4.2 Required Action

If you refer to the attached document, Step 5.1.1 the AIP(CPI) calculation, the last part of the calculation EV X Indexratio. We believe that this is not being calculated or applied correctly. Please refer to the entire section on inflation linked bond pricing. Alternatively please contact us for an explanation or the full pricing document.

3.1.4.3 QC Reference

3.1.4.4 Priority

2

5 Inflation Linked Buy/Sell Backs

This section explains how the Bond Exchange Trade Capture system calculates the prices for Inflation Linked Buy/Sell-Backs listed on the Exchange. For a more detailed overview of Pricing Repo's / Buy/Sell Back's in South Africa, please refer to the "Pricing Buy/Sell Backs" Document distributed by BESA.

Pricing Inflation Linked Buy/Sell-backs is not as simple as pricing vanilla Buy/Sell-backs. It is further complicated in South Africa because of the historical methodology we use for pricing Buy/Sell-backs whereby we iterate back a yield to calculate the consideration for the second leg of the Buy/Sell-backs.

5.1 Pricing Inflation Linked Buy/Sell-Backs

The calculation of the first leg of the Inflation Linked Buy/Sell-back is simply the All-in price of the Inflation linked bond as calculated in section 3.6 above (AIP_{CPI}). Calculation of the second leg of the Inflation Linked Buy/Sell-back is divided into four steps namely:

1. Adding the Repo interest to the All-in price calculated on the first settlement leg.
2. Adjusting for the impact of any future coupons.
3. Iterate back the closest yield corresponding to the calculated second leg All-in price.
4. Use this yield to recalculate the second leg of the Inflation Linked Buy/Sell-back.

5.1.1 Steps 1 & 2

$$AIP_{CPI_2} = AIP_{CPI_1} \times \left(1 + \frac{r}{100} \times \frac{d_2 - d_1}{365} \right) - \frac{CPN}{2} \times \sum_i [EV_{cd_i, d_2} \times Indexratio_{cd_i}]$$

Where:

$$EV_{cd_i, d_2} = \frac{1}{1 + \frac{r}{100} \times \frac{cd_i - d_2}{365}} \quad \text{if } d_2 < cd_i \text{ and } d_2 \text{ is in the ex period.}$$

$$EV_{cd_i, d_2} = 1 + \frac{r}{100} \times \frac{d_2 - cd_i}{365} \quad \text{if } d_2 \geq cd_i$$

d_1 = First settlement date

d_2 = Second Settlement date

Note that $d_2 > d_1$ as per market convention.

r = Inflation Linked Buy/Sell-back rate (Repo rate) expressed as a simple rate. Please note that the interest rate of say 8% would be represented as 8.

cd_i = This is the set of coupon dates which affect the Inflation Linked Buy/Sell-back. In other words the person who hands over the bonds as collateral in return for putting cash on deposit at the "Repo" rate is still entitled to receive the coupons from the collateral (our Inflation Linked bonds); we therefore account for these coupon payments in the second leg of the Buy/Sell-back. If there are no coupon consequences then cd_i will be zero and we would ignore the second term in the equation. $i=1$ refers to the next coupon date and $i=2$ would refer to the following coupon date etc;

EV = Equivalent value. If the second leg of the Inflation Linked Buy/Sell-back falls in the bond's ex period, then we discount the coupon back to d_2 and subtract it from the proceeds to be paid to the counterparty as they will receive the next coupon. If on the other hand, the second leg of the Inflation Linked Buy/Sell-back follows a coupon date and the counterparty receives the coupon, we subtract not only the value of the coupon but the interest we could have earned on the coupon using the "Repo" rate for the interest calculation. If the Inflation Linked Buy/Sell-back spans many coupon dates, we would subtract each respective coupon and the interest we could earn on each respective coupon up to the second leg of the Inflation Linked Buy/Sell-back.

$Indexratio_{cdi}$ = This is the Index ratio applicable to the coupon payment date. If a coupon is paid, we multiply the coupon by the index ratio applicable to the coupon date and incorporate this in our final calculation i.e. we adjust the coupon for inflation (multiply by the index ratio) as this is the cash flow that would be received by the bondholder.

CPN = Annual Coupon.

5.1.2 Step 3

To iterate back the yield corresponding to AIP_{CPI_2} we determine the Reference CPI on date 2 (second leg of the Inflation Linked Buy/Sell-back) as well as index ratio for the second leg. The iteration then tests for a real yield equal to the AIP_{CPI_2} given the index ratio. For more information on the process of iteration, please refer to the "Bond Pricing Specification."

5.1.3 Step 4

Since we have to iterate the real yield of the AIP on the second leg \ settlement date taking into account the index ratio on this date (second settlement date), this results in a limitation in that if the Inflation Linked Buy/Sell-back is over 4 months, we will not have the data for the index ratio, simply because the statistic will not be available yet (inflation figures actually lag by approximately 4-6 weeks.) We use this yield iteration to calculate the final value of the All-in price of the second leg.

3.1.5 The bulk div upload functionality is changing the input data

3.1.5.1 Description

When using the bulk div functionality for uploading trades there are instances where the instruments is defaulting to an instrument that was higher up on the list. At this point in time all subsequent information is defaulting to this instrument.

Example

```
R157 ABMN 1,000,000 12/05/2011
R186 ABMN 5,000,000 13/06/2011
R203 ABMN 3,000,000 12/05/2011
R204 ABMN 10,000,000 13/06/2011
R189 ABMN 2,000,000 12/05/2011
```

Is appearing as ...

```
R157 ABMN 1,000,000 12/05/2011
R186 ABMN 5,000,000 13/06/2011
R203 ABMN 3,000,000 12/05/2011
R203 ABMN 10,000,000 13/06/2011
R203 ABMN 2,000,000 12/05/2011
```

...in the unsettled file.

3.1.5.2 Required Action

We are unable to exactly replicate this problem but require that it is investigated and corrected.

3.1.5.3 QC Reference

3.1.5.4 Priority

2

3.1.6 XML print transfer is capturing a 0 value as a null value

3.1.6.1 Description

The xml export is causing the accrued interest value to be null if the value is zero.

3.1.6.2 Required Action

Due to the nature of pricing an instrument a null value is a relevant number and causes downstream implications. This null value should be changed to 0. An extract of an example is attached.

3.1.6.3 QC Reference

3.1.6.4 Priority

3

- <UnSettledTrades>
<BuySell>**B**</BuySell>
<Qty>**100000000**</Qty>
<OrigQty>**100000000**</OrigQty>
<Contract>**10 MAY11 ACCP26**</Contract>
<OrderPrice>**98.59518**</OrderPrice>
<TradePrice>**98.59518**</TradePrice>
<Price>**98.59518**</Price>
<AccruedInterest />
<CleanPrice>**98.59518**</CleanPrice>
<OrderRefNo>**000000197/0**</OrderRefNo>
<ExchangeRef>**B078051A.**</ExchangeRef>
<Principle>**OLDM**</Principle>
<PrincipleStrateCode />
<MasterClient>**OLDM**</MasterClient>
<Dealer>**NAZ**</Dealer>
<Member>**OLDM**</Member>
<OrderTime>**11:36:30**</OrderTime>
<DealtTime>**11:36:30**</DealtTime>
<SettleDate>**2011/05/10**</SettleDate>
<TradeDate>**2011/05/10**</TradeDate>
<Consideration>**98595181.89**</Consideration>
<SeqNo>**94964**</SeqNo>
<CarryRate>**0**</CarryRate>
<TradeLeg>**015330361**</TradeLeg>
<MatchRef>**015339452**</MatchRef>
<Type />
<EqOppR1Leg />
<IDBCode />
<Portfolio />
<ProfCtr />
<EnterTime>**11:36:30**</EnterTime>
<MatchTime>**11:36:30**</MatchTime>
<Comitted>**Not Committed**</Comitted>
<Settled>**Not Settled**</Settled>
<Cancelled>**Not Cancelled**</Cancelled>
<Origin>**ReportOnly**</Origin>
<Reason />
<Capacity>**P**</Capacity>
<SubAccount />
<BDAccount />
<SpotPrice>**0**</SpotPrice>
<CounterParty>**NRMN**</CounterParty>

3.1.7 The bulk div functionality is truncating the nominal captured value

3.1.7.1 Description

When capturing a nominal value into the bulk div facility which has a decimal value the decimal data is being dropped.

Example

Nominal 1,000,000.50 is being reported as 1,000,000

3.1.7.2 Required Action

Ensure that decimal values are carried through from the bulk div functionality to the matched files.

3.1.7.3 QC Reference

3.1.7.4 Priority

2

3.1.8 Capturing a decimal value in the nominal field requires a re-edit

3.1.8.1 Description

When capturing a nominal value into a spot/repo trade the system does not originally allow the user to capture a decimal value. Only after the field has been populated can the user tab back and insert the decimal value.

3.1.8.2 Required Action

Allow users to capture nominal values that include decimal points.

3.1.8.3 QC Reference

3.1.8.4 Priority

3

3.1.9 Accrued interest for Inflation linked bonds is being displayed incorrectly in the unsettled trades view

3.1.9.1 Description

The accrued interest value that is displayed in the unsettled trade view and resultant exports is a value that excludes the CPI adjustment. All other fields display this value correctly.

3.1.9.2 Required Action

Adjust the value to include the correct accrued interest value. Please refer to the attached extract from the Inflation Linked Bond pricing specification (Point 3). Should you require more detail please refer to the actual pricing specification or contact us?

3.1.9.3 QC Reference

3.1.9.4 Priority

2

3.7 Rounding Conventions

- All intermediate calculations are to IEEE double precision (15 significant digits).
- The all-in price of the inflation indexed bond is obtained by multiplying the rounded all-in price from the BESA bond formula by the unrounded Index Ratio, and the result is rounded to 5 decimal places.
- The accrued interest is calculated by multiplying the rounded accrued interest obtained from the BESA bond pricing formula by the unrounded Index Ratio. The result is rounded to 5 decimal places.
- The rounded clean price is obtained by subtracting the rounded accrued interest from the rounded all-in price.

4.2 Critical Enhancements

3.2.1 Users are allowed to do reallocations multiple times

3.2.1.1 Description

When users do a re-allocation the original trades status\display does not change. This creates an environment where a re-allocation can be performed multiple times on the same deals creating a position in the opposite direction to the original trade.

3.2.1.2 Required Action

A reallocation can only be performed once on any given trade. Once a trade has been reallocated the trade should be highlighted in a different colour and no further action should be able to be performed against this trade. The original trade and the reallocation should include a reference indicating that these trades are reallocations. Do not allow users to reallocated the reallocated legs.

3.2.1.3 QC Reference

3.2.1.4 Priority

3

3.2.2 Include an IDB Flag

3.2.2.1 Description

All spot and repo trades do not currently have a field to report name give up IDB transactions

3.2.2.2 Required Action

Include a drop down list of IDB's that users can use to include in the trade detail. This field should be matching criteria. The list should be non-editable on the FE but the exchange should be able to add\remove codes to this list. The code should be four characters long. E.g.CMBS. This field should be available for all trade types.

3.2.2.3 QC Reference

3.2.2.4 Priority

3

3.2.3 Download Button on all Views

3.2.3.1 Description

There are many instances where users are not seeing refreshed data in certain views. In order to restore the views to the correct data users have to close and re-open the application.

3.2.3.2 Required Action

Include a button that allows users to request a new snapshot of the data from the database allowing any alignment mismatches between the front end and the database to be corrected.

3.2.3.3 QC Reference

3.2.3.4 Priority

3

3.2.4 Deal Ticket Printing

3.2.4.1 Description

Currently Nutron does not allow the user to print an individual deal ticket from any views.

3.2.4.2 Required Action

Users should be able to print a deal ticket from the following screens:

- Unmatched
- Unsettled
- Unconfirmed
- Deal Capture Window (Before the deal is submitted\as the deal is submitted)

The deal ticket should include all the details that were captured as per the attached sample.

Exchange Ref #: 000000001

Local Referecen #: BGVF55534/03

Dealer ID: CL1

Trade Date: 20 May 2003

Trade Time: 10:40 am

B/S B

Principle: BESA 1

Principle Ref: 000000001

Nominal: R 10 000 000.00

Bond: R150

Coupon 12%

Maturity Date 28 Feb 2005

Settlement Date 1: 22 May 2003

Settlement Date 2: 23 May 2003

Counterparty: BESA

Counterparty Ref: 00000125

IDB Code: PYSA

Carry Rate: 10

Yield: 11

Consideration: 10 423 998.00

All in Price: 104.23998

Cum/Ex: 83 cum

Accrued Interest: 2.72877

Clean Price: 101.51121

Portfolio: ABCDE

Field 1: FGHIJ

3.2.4.3 QC Reference

3.2.4.4 Priority

3

3.2.5 Filtering Enhancements

3.2.5.1 Description

Currently the filtering of information on all Nutron fields is extremely limited. We wish to enhance the filtering ability on all fields.

3.2.5.2 Required Action

Each displayed field should be filterable. Also a combination of any of the fields should also be possible. An example is attached below showing the filterable columns.

Instruments	Trade Date	Settlement Date	Yield	Counterparty	Nominal	Aip	Accrued Interest

3.2.5.3 QC Reference

3.2.5.4 Priority

3

3.2.6 Reverse Repo Enhancement

3.2.6.1 Description

The pricing of a carry and a reverse repo are slightly different. A repo and a carry transaction also have a slightly different pricing methodology. The market uses both sets of terminology interchangeably.

3.2.6.2 Required Action

Rename the Repo Button to Reverse Repo Button. Keep Functionality\Pricing as follows. The trade type should be changed to reverse repo when booking.

704 - CARRY RATE CALCULATIONS			
Stock Code	R201	Redemption	2014/12/21
Nominal Amount	187 000 000.00	Coupon Rate	8.75000 %
PRESENT DATA			
Settlement Date	2011/05/19		
Yield To Maturity	7.34000 %	Flat	8.46392 %
Capital Price	104.37883		195 188 412.10
Accrued Interest	3.57192		6 679 490.40
All In Price	107.95075		201 867 902.50
Carry Rate	5.50010 %	NACM	5.3661
Compounding N/D/M/Q/S/A	A	REPO ?	<input type="checkbox"/>
Period	56 Days	Fund Rate	10.00000 %
		F(lat, N(acm	F
BUY BACK DATA			
Buy Back Date	2011/07/14		
Yield To Maturity	7.43320 %	Flat	8.41993 %
Capital Price	103.92016		194 330 699.11
Accrued Interest	0.55137		1 031 061.90
All In Price	104.47153		195 361 761.01
PV Of Coupon	4.39016		8 209 604.69
Total Price	108.86169		203 571 365.70
Interest Amount	0.91094 %	P/L	1 393 688.18
Printout?	<input type="checkbox"/>	Ann Return	4.500
Record which Deal ..F6..?			N
Insert	2011/05/16	TRAD	U to enter, <End>, <Esc> to Quit

Above: R201 187m nominal, 7.34 yield and calculated consideration, acc interest and all in price

704 - CARRY RATE CALCULATIONS			
Stock Code	R201	Redemption	2014/12/21
Nominal Amount	187 000 000.00	Coupon Rate	8.75000 %
PRESENT DATA			
Settlement Date	2011/05/19		
Yield To Maturity	7.65482 %	Flat	8.46392 %
Capital Price	103.37995		193 320 506.50
Accrued Interest	3.57192		6 679 490.40
All In Price	106.95187		200 000 000.00
Carry Rate	5.50000 %	NACM	5.3660
Compounding N/D/M/Q/S/A	A	REPO ?	<input checked="" type="checkbox"/>
Period	56 Days	Fund Rate	10.00000 %
		F(lat, N(acm	F
BUY BACK DATA			
Buy Back Date	2011/07/14		
Yield To Maturity	7.76460 %	Flat	8.50234 %
Capital Price	102.91284		192 447 005.14
Accrued Interest	0.55137		1 031 061.90
All In Price	103.46421		193 478 067.04
P V Of Coupon	4.39016		8 209 604.20
Total Price	107.85437		201 687 671.23
Interest Amount	0.90250 %	P/L	1 380 821.90
Printout?	<input type="checkbox"/>	Ann Return	4.500
Record which Deal ..F6..?			N
Insert	2011/05/16	TRAD	U to enter, <End>, <Esc> to Quit

Above same info, changed the consideration to 200m cash. Repo rate is 5.5 and the data is calculated by the system.

Note the following:

The original yield, acc interest and all in price has changed. The carry rate is fixed.

3.2.6.3 QC Reference

3.2.6.4 Priority

3

3.2.7 Option Exercised Flag

3.2.7.1 Description

When an OTC option is dealt and the resulting on market deal is reported to the JSE, an Option Exercised flag becomes necessary. As the deal could be conducted significantly far away from the current market levels, a field becomes necessary from a surveillance perspective as well as administration systems at members.

3.2.7.2 Required Action

Include a flag called OX. This flag should be matching criteria.

3.2.7.3 QC Reference

3.2.7.4 Priority

3

3.2.8 Increase Reference Field Length

3.2.8.1 Description

The reference number field is used by members to create unique identifiers from their internal systems. The Current length of the field is not sufficient for many users.

3.2.8.2 Required Action

Increase the length of this field to 24 characters.

3.2.8.3 QC Reference

3.2.8.4 Priority

3

3.2.9 Creating a Dealer Identification Code Field

3.2.9.1 Description

Currently Nutron largely assumes that the person who logs into the system is the only user. Given the nature of the Bond market and the current rules that are in place for trade reporting, a need has arisen to enable back office staff to include the trader who conducted the trade in the reporting screen.

3.2.9.2 Required Action

The JSE must be able to create and maintain a list of all traders. This list should include a code for each trader which should be unique. When capturing a deal a back office staff member should be required to select a dealer from a drop down list of codes. The back office person should only be able to report deals on their own behalf if they are set up with full trader rights on the system.

There should be the ability for a default code to be populated for users that would book on behalf of on one trader

3.2.9.3 QC Reference

3.2.9.4 Priority

3

3.2.10 Enhance Sort Functionality

3.2.10.1 Description

At current on certain fields are available for sorting.

3.2.10.2 Required Action

Enhance all views to allow users to filter on any field in any view.

3.2.10.3 QC Reference

3.2.10.4 Priority

3

3.2.11 Counterparty in Spot Views

3.2.11.1 Description

The spot views window does not currently include the counterparty code. Also the unsettled in management.

3.2.11.2 Required Action

Include the counterparty code in the spot views screen and unsettled.

3.2.11.3 QC Reference

3.2.11.4 Priority

4

3.2.12 Reversing Deals on Settlement Day

3.2.12.1 Description

Currently Nutron only allows users to reverse deals on any day up to but excluding Settlement Day.

3.2.12.2 Required Action

Users should be allowed to reverse deals on settlement day as well.

3.2.12.3 QC Reference

3.2.12.4 Priority

3

3.2.13 Enhance Matching Criteria

3.2.13.1 Description

There are a number of fields which are not being considered as matching criteria which is causing deals to match with difference details. Currently the following fields are matching criteria:

- BuySell
- Quantity
- AllInPrice
- Contract
- CounterParty
- Member
- Yield
- YieldLeg2
- AllInPriceLeg2
- Consideration
- ConsiderationLeg2
- CarryRate

3.2.13.2 Required Action

All deals should be matched using all of the following details:

Add new Fields as per unmatched screen assessment

3.2.13.3 QC Reference

3.2.13.4 Priority

2

3.2.14 Positions

3.2.14.1 Description

Matched Principle Inter Dealer Brokers match back to back deals with participants as their daily business. As a generic requirement from a counterparty risk model and good corporate governance, they are not permitted to have a position at any point in time. Nutron does not currently allow IDB's to monitor the status of their matched deals and resultant position.

3.2.14.2 Required Action

This functionality must provide:

- A real time view of the netted buys and sells as they occur;
- Two views are available:
 - Current day;
 - All trades not settled
- This netting will be done using the nominal values;
- This function must be displayed per Principal ID and per Bond, i.e. each line is a cumulative positions per principal per bond.
- The system will also display net zero postions;
- Displays overall net position. Calculation:
- $\text{Nominal gross purchase (Unconfirmed + confirmed) - Nominal gross sales (confirmed + Unconfirmed) = Net Position (Confirmed + Unconfirmed)}$

The following information will be displayed in the matched deal screen:

Field	Description
Principal:	The principal party for the position
Bond:	The instrument code
Settlement Date:	Settlement Date of position
Unconfirmed Buys:	Unmatched and matched but unconfirmed Buy position trades nominal value
Unconfirmed Sells:	Unmatched and matched but unconfirmed Sell position trades nominal value
Confirmed Buys:	Confirmed buys nominal value
Confirmed Sells:	Confirmed sell nominal value
Overall Position:	Nominal value of combined unconfirmed and confirmed values

Selecting the view function will display all the trades that make up the overall position.

The print function will allow the user to print the current view of the position screens.

3.2.14.3 QC Reference

3.2.14.4 Priority

2

3.2.15 STRATE Error Code Explanation

3.2.15.1 Description

When a trade is rejected by Strate it sits in the unconfirmed view with an error code which is generated by Strate.

3.2.15.2 Required Action

Include an Explanation of the error codes with the error. Find attached the list of error codes and their explanation.



ERROR CODEs _
161110.xls

3.2.15.3 QC Reference

3.2.15.4 Priority

3

3.3 Additional Enhancements

3.3.1 Single Client Code

3.3.1.1 Description

Client codes have created a number of difficulties with the go live of Nutron and subsequent to the go live of Nutron. API users were required to create mapping tables between the current set of Strate codes and the Nutron codes as Nutron would only accept the Nutron Codes. The Front end was adapted to allow users to use a look up table of either of the two codes.

3.3.1.2 Required Action

Either remove the Nutron code altogether from the Spot Bond Interest Rate perspective (This would create massive problems with the derivative products one would assume) or alternatively move the mapping table to the back end allowing users to capture either the Nutron or the Strate Codes. On request API's should be able to download a complete list of applicable clients (Strate and Nutron).

This discussion needs to be picked up with market participants as it has large impacts on multiple markets and multiple players.

3.3.1.3 QC Reference

3.3.1.4 Priority

4

3.3.2 Principal and Counterpart Display

3.3.2.1 Description

Nutron currently displays only the counterparty in one leg of the transaction for client trades. Users are not able to identify principal positions by extracting principal or counterparty information.

3.3.2.2 Required Action

Client transactions should be displayed as:

Leg 1: Principal → Counterparty

Leg 2: Counterparty → Principal

3.3.2.3 QC Reference

3.3.2.4 Priority

4

3.3.3 Window Views

3.3.3.1 Description

TBA

3.3.3.2 Required Action

Client transactions should be displayed as:

Leg 1: Principal → Counterparty

Leg 2: Counterparty → Principal

3.3.3.3 QC Reference

3.3.3.4 Priority

4

3.3.4 Autoscroll in all views

3.3.4.1 Description

When a new deal enters any of the screens the screen scrolls to the bottom of the view where the new deal enters. If users are working with another deal they are moved away from the relevant deal.

3.3.4.2 Required Action

In all views the display should not be affected by a new deal entering the view.

3.3.4.3 QC Reference

3.3.4.4 Priority

4

3.3.4.5 Comments

Get more details around the pause button functionality

3.3.5 Number Formatting

3.3.5.1 Description

All numbers in all views should be formatted as numbers with comma delimited and 2 decimal places. The unsettled file nominal does not view as all other numbers.

3.3.5.2 Required Action

Ensure that all numbers are formatted #,###,###.00

3.3.5.3 QC Reference

3.3.5.4 Priority

4

3.3.6 Trade Reject Button

3.3.6.1 Description

If a deal is entered against a counterparty that is incorrect for any reason users should be able to reject the deal and attach a reason for the reject.

3.3.6.2 Required Action

Allow users to reject an unmatched deal and add a reason for the reject. This button is needed on the incoming screen.

3.3.6.3 QC Reference

3.3.6.4 Priority

4

3.3.7 Replica Inflation Linked Bond Pricing

3.3.7.1 Description

Inflation Linked bonds are calculated by using a base CPI number which is calculated by determining an interpolated CPI rate for the issue date. Certain CPI instruments use base CPI rates that do not correspond to their issue date.

3.3.7.2 Required Action

When creating an instrument allow a base CPI to be loaded and include a flag indicating that the instrument is a replica instrument.

3.3.7.3 QC Reference

3.3.7.4 Priority

4

3.3.8 Column Recovery

3.3.8.1 Description

If a user double clicks on a column it minimizes the column to a tiny column. There is no way to recover this column in a simple manner.

3.3.8.2 Required Action

Either do not allow columns to be resized past a minimum amount or alternatively allow for column widths to be restored to default width.

3.3.8.3 QC Reference

3.3.8.4 Priority

4

3.3.9 Scheduled Exporting

3.3.9.1 Description

User require the functionality to export views to a specified formatted at regular intervals without requiring manual intervention.

3.3.9.2 Required Action

Allow users to export all views based on a certain interval. (Include More Detail)

3.3.9.3 QC Reference

3.3.9.4 Priority

4

3.3.10 Flag Edits

3.3.10.1 Description

Deals that have been edited should be flagged\highlighted to indicate that an edit has been performed.

3.3.10.2 Required Action

Any deal in the unmatched views should be highlighted in a different colour if the deal has been edited.

3.3.10.3 QC Reference

3.3.10.4 Priority

4

3.3.11 Navigation by arrow Keys

3.3.11.1 Description

Users have requested that they are able to navigate through any view using the up, down, left and right keys

3.3.11.2 Required Action

Navigation through arrow keys through views.

3.3.11.3 QC Reference

3.3.11.4 Priority

4

3.3.12 Prime Broking Flag

3.3.12.1 Description

Many deals reported through the exchange are prime broked deals. We have no way in identifying which deals these are.

3.3.12.2 Required Action

When booking a deal include a flag to allow users to identify a deal as a prime broked deal. This would not be matching criteria and would be included in the API.

3.3.12.3 QC Reference

3.3.12.4 Priority

4

3.3.13 Instruments View

3.3.13.1 Description

Each instrument is essentially broken up into a bucket of settlement date instruments. E.g. R157 13 March 2011 and R157 14 March 2011. Users are requested to view all R157s excluding SD other than actual SD value.

3.3.13.2 Required Action

Group all instruments with different settlement dates into a single bucket.

3.3.13.3 QC Reference

3.3.13.4 Priority

4

3.3.14 Reversing R1 after R2

3.3.14.1 Description

Reversing a repo transaction should not permit a user to reverse R1 if R2 has not been reversed already.

3.3.14.2 Required Action

Prohibit users from reversing R1 if R2 has not already been reversed.

3.3.14.3 QC Reference

3.3.14.4 Priority

4

3.3.15 Double Click Download Button

3.3.15.1 Description

Double clicking the export/download button cause file to include some duplicate values.

3.3.15.2 Required Action

Restrict users from double clicking on the download button. Perhaps add a re click interval

3.3.15.3 QC Reference

3.3.15.4 Priority

4

3.3.16 Re Allocation Flags

3.3.16.1 Description

The original deal that is been reversed needs a flag and a colour change once the deal is equal and opposite. Also the equal and opposite leg needs a highlight.

3.3.16.2 Required Action

Original Deal → Highlighted as Equal and opposite colour and Flag indicating it has been equal and opposite

Equal and opposite Leg → Highlighted as an equal and opposite and Equal and opposite Flag

3.3.16.3 QC Reference

3.3.16.4 Priority

4

3.3.17 Backspace Yield

3.3.17.1 Description

Users have to highlight the yield field with mouse to edit incorrect value

3.3.17.2 Required Action

Allow users to backspace in yield field for editing purposes.

3.3.17.3 QC Reference

3.3.17.4 Priority

4

3.3.18 Reverse Lookup Div

3.3.18.1 Description

Doing a bulk div does nto allow the user to insert a Strate Code

3.3.18.2 Required Action

Add the lookup table allowing users to capture on strate code in the bulk div screen.

3.3.18.3 QC Reference

3.3.18.4 Priority

4

3.3.19 Resubmit Unconfirmed deals

3.3.19.1 Description

Users are not able to resubmit deals in unconfirmed window

3.3.19.2 Required Action

Add button allowing users to resubmit deals in the unconfirmed window.

3.3.19.3 QC Reference

3.3.19.4 Priority

4

3.3.20 Trade Rights

3.3.20.1 Description

Currently front office and back office have equal reporting\editing rights.

3.3.20.2 Required Action

Include right restrictions that allow dealers to only capture deals and back office to only edit deals.

3.3.20.3 QC Reference

3.3.20.4 Priority

4

3.3.21 Audit Trail

3.3.21.1 Description

Currently on the exchange can extract an audit trail

3.3.21.2 Required Action

Allow users to extract an audit trail for each trade leg.

3.3.21.3 QC Reference

3.3.21.4 Priority

4

3.3.22 Nominal in COB

3.3.22.1 Description

Currently nominal is expressed through the open interest value on the COB

3.3.22.2 Required Action

Create a new nominal column in COB that adds all nominal values per instrument.

3.3.22.3 QC Reference

3.3.22.4 Priority

4

3.3.23 Unmatched till SD

3.3.23.1 Description

Currently unmatched deals are removed from the system at the end of day

3.3.23.2 Required Action

Leave unmatched deals in view until end of day on SD

3.3.23.3 QC Reference

3.3.23.4 Priority

4

3.3.24 Tab past Principal and Counterparty Blocks

3.3.24.1 Description

Users have requested a reduced amount of tabs on trade capture

3.3.24.2 Required Action

Skip the principal and counterparty lookup tabs when tabbing through capture fields.

3.3.24.3 QC Reference

3.3.24.4 Priority

4

3.3.25 Trades to Stay in spot View until SD

3.3.25.1 Description

Trades currently fall out of Spot view at end of day

3.3.25.2 Required Action

Allow deals to stay in Spot view until SD

3.3.25.3 QC Reference

3.3.25.4 Priority

4

3.3.26 Recoverable SD Message

3.3.26.1 Description

Currently the Same Day window message is not recoverable. If an API user is not logged on when it is sent they will not receive it.

3.3.26.2 Required Action

Create a recoverable SD message for afffront end and API users.

3.3.26.3 QC Reference

3.3.26.4 Priority

4

3.3.27 Edit Coupon Rate at Later Date

3.3.27.1 Description

When instrument is loaded the coupon rate is not always known. Currently the rates have to be deleted and recreated in management.

3.3.27.2 Required Action

Add an edit button allowing management users to edit this information.

3.3.27.3 QC Reference

3.3.27.4 Priority

4

3.3.28 Don't force Window focus

3.3.28.1 Description

Users are not able to use multiple windows at the same time

3.3.28.2 Required Action

Allow users to view multiple screens without closing one window. Do not allow multiples of the same window to be opened.

3.3.28.3 QC Reference

3.3.28.4 Priority

4

3.3.29 Bonds at expiry

3.3.29.1 Description

When an instrument nears maturity (< 3 days) users cannot submit a deal as the instruments is set up as a T+3 instrument.

3.3.29.2 Required Action

Allow users to Submit deal up to maturity date

3.3.29.3 QC Reference

3.3.29.4 Priority

4

4 Proposed Dependencies

None.

5 Proposed Impact on other Initiatives or Projects

None.

6 Glossary

Term / abbreviation / acronym	Description